Remarks

1. Summary of Office Action

In the office action mailed August 2, 2004, the Examiner indicated that the Information Disclosure Statement filed on December 1, 2000 fails to comply with provisions of 37 C.F.R. §§ 1.97-1.98 and M.P.E.P. § 609 because a publication date was not provided for the Caronni et al. reference entitled "Virtual Enterprise Networks: The Next Generation of Secure Enterprise Networking."

With respect to the claims, the Examiner rejected claims 13 and 20 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as their invention. The Examiner rejected claims 1-3, 5-10, 12, 14-16, and 18-20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,006,264 (Colby et al.) in view of Charles P. Pfleeger, "Security in Computing", ISBN 013374866, 1996 (Pfleeger). The Examiner rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Colby et al. and Pfleeger, as applied to claim 3. The Examiner rejected claims 11, 21, and 22 under 35 U.S.C. § 103(a) as being unpatentable over Colby et al. and Pfleeger, as applied to claims 1 and 18. The Examiner rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Colby et al. and Pfleeger, as applied to claim 12. And, the Examiner rejected claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Colby et al. and Pfleeger, as applied to claim 16 in view of U.S. Patent No. 5,819,091 (Arendt et al.).

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2. Information Disclosure Statement

As noted above, the Examiner indicated that the information disclosure statement filed on December 1, 2000 fails to comply with the provisions of 37 C.F.R. §§ 1.97-1.98 and M.P.E.P. § 609. Applicants have submitted an information disclosure statement that (i) lists the Caronni et al. document entitled "Virtual Enterprise Networks: The Next Generation of Secure Enterprise Networking," and (ii) indicates that the Caronni et al. document was printed from the World Wide Web at least as early as December 1, 2000, the filing date of the application.

3. Amendments and Pending Claims

The application as filed contained 22 claims. Applicants have amended claims 1, 16, and 18. Presently pending in this application are claims 1-22, of which claims 1, 16, and 18 are independent, and the remainder are dependent.

4. Response to § 112 Rejections

As noted above, the Examiner rejected claims 13 and 20 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as their invention. According to M.P.E.P. § 2173.05(h), one acceptable form of an alternative expression, which is commonly referred to as a Markush group, recites members as being "selected from the group consisting of A, B, and C." Applicants submit that the words "the group" recited in claims 13 and 20 are part of a respective Markush group in each of these claims, and thus, claims 13 and 20 are in proper condition for allowance.

5. Response to § 103 Rejections of claims 1-16 and 18-22 Over a Combination of Colby et al. and Pfleeger

The Examiner next rejected independent claims 1, 16, and 18, and dependent claims 2-15 and 19-22, as being obvious over a combination of Colby et al. and Pfleeger. Applicants respectfully traverse this rejection, because Colby et al. and Pfleeger, whether considered alone

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or in combination, fail to disclose or suggest the combination of elements recited in any of these claims, as would be required to support an obviousness rejection under M.P.E.P. § 2143.

In particular, with respect to claim 1, the combination of Colby et al. and Pfleeger fails to teach the claimed functions of (i) detecting an attempted inter-node communication between service components within the computing environment, the attempted inter-node communication resulting from a service access communication received into the computing environment from an entity external to the computing environment via the external network, or (ii) determining that the attempted inter-node communication is not allowed and responsively blocking the attempted inter-node communication. In accordance with claim 1, the computing environment includes a plurality of processing nodes interconnected via a network switching system, each of the service components are programmed on a respective one of the processing nodes, and the computing environment is coupled to the external network.

Further, in particular, with respect to claim 16, the combination of Colby et al. and Pfleeger fails to teach the claimed functions of (i) provisioning the public computing platform to allow inter-node communications comprising the allowed communications between application components and to disallow other inter-node communications, wherein each inter-node communication, whether allowed or disallowed, is a communication between processing nodes of the public computing platform resulting from an application access communication received into the public computing platform from an entity external to the public computing platform via the external network, or (ii) determining that an attempted communication between application components is not allowed and responsively blocking the attempted communication. In accordance with claim 16, application components of at least two applications are loaded onto at

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least two processing nodes of the public computing platform and the public computing platform is coupled to the external network.

Further still, in particular, with respect to claim 18, the combination of Colby et al. and Pfleeger fails to teach the claimed public computing platform that includes (i) logic that is executable, in response to an attempted inter-node communication between application components within the public computing platform, to make a determination of whether the attempted inter-node communication is allowed, wherein the attempted inter-node communication occurs as a result of an application access communication received into the network switching system via the external network, or (ii) logic that is executable, in response to a determination that the attempted inter-node communication is not allowed, to block the attempted inter-node communication. In accordance with this claim, the public computing platform includes a network switching system coupled to the external network, a plurality of processing nodes interconnected via the networking switching system, and a plurality of application components loaded onto the processing nodes.

In rejecting claims 1, 16, and 18, the Examiner indicated that Colby et al. teaches communication between service components and executable logic that responds to an attempted inter-node communication. However, Colby et al. (as well as Colby et al. in combination with Pfleeger) does not teach or suggest the attempted inter-node communication between application (or "service") components within the computing environment, where the inter-node communication results from an application (or "service") access communication, as recited in claims 1, 16, and 18. The specification at page 11, lines 5-6, indicates that "services" are equivalent to "applications."

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At best, Colby et al. teaches (i) a client making a content request, the content request being intercepted by a content-aware flow switch, (ii) the flow switch accepting the content request and thereafter establishing a logical connection between the client and a server, (iii) the flow switch seamlessly forwarding the content request to the server, and (iv) response traffic flowing from the server to the flow switch and then from the flow switch to the client. However, whether the client and server are on the same network or on different networks, Colby et al. does not teach or suggest the attempted inter-node communication between application components resulting from an application access communication, as recited in claims 1, 16, or 18. First, if the client and server are on the same network, then the content request received at the flow switch (and subsequently the server) would not be an application access communication received into the network from an entity external to network. Second, if the client and server are on different networks (and if the server and client have application components load onto them), then the server's response to the client would not be an inter-node communication between application components within the network.

Further, Colby et al. does not teach or suggest that a communication between a server and the flow switch, or a communication between a client and the flow switch, is an inter-node communication between application components, as recited in claims 1, 16 and 18. In rejecting claims 1, 16, and 18, the Examiner indicated that Colby et al. teaches that the content-aware flow switch, as well as a server or a client, is a processing node and that a plurality of application components are loaded onto a plurality of processing nodes. The Examiner asserted that an application, such as a Java applet, is content that a client can request from a server. However, even if the content-aware flow switch is a processing node, which Applicants do not concede, and even if an application is an application component, which Applicants do not concede, Colby

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et al. does not teach that the content aware flow switch includes an application component that communicates with another application component on the server (or on the client).

At best, Colby et al. teaches merely that an application, such as a Java applet, is content that may be requested by a client, and sent from a server to the client via the content-aware flow switch. Although Colby et al. indicates the content-aware flow switch reserves a fixed amount of buffer space for flows, Applicants do not find that Colby et al. teaches that an application, such as a Java applet, that is forwarded to the content-aware flow switch from a server, actually performs a communication with (i) the server that sent the application, or (ii) the client that is to receive (or has received) the application from the content-aware flow switch. Since Colby et al. teaches merely that an application (content) is forwarded from a server to the content-aware flow switch and then from the flow switch to a client, and not that there is any communication between the application at the content-aware flow switch and the server and/or client, Applicants submit that a communication between a server and the flow switch, or a communication between a client and the flow switch, is not an inter-node communication between application components, as recited in claims 1, 16, and 18.

Further still, acknowledging that Colby et al. does not teach blocking a disallowed inter-node communication, the Examiner turned to Pfleeger at § 9.5, pages 426-428, for teaching this missing claim element. With all due respect, however, Applicants submit that § 9.5, including pages 426-428 (like the rest of Pfleeger) does not teach or suggest the function of blocking the attempted inter-node communication, as recited in claims 1, 16, and 18.

§ 9.5 of Pfleeger teaches merely the use of firewalls, such as a screening router or a proxy gateway, to filter all traffic between a protected or "inside" network and a less trustworthy or "outside" network. Although Pfleeger teaches blocking communication traffic from an outside

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network, Applicants submit that Pfleeger does not teach or suggest blocking the attempted inter-node communication between service components within the computing environment, where the attempted inter-node communication results from a service access communication received into the computing environment from an entity external to the computing environment via the external network.

Because Colby et al. and Pfleeger, whether considered alone or in combination, fail to disclose or suggest (i) the attempted inter-node communication between application (or service) components within the computing environment, where the attempted inter-node communication results from an application (or service) access communication received into the computing environment, from an entity external to the computing environment, via the external network, or (ii) determining that the attempted inter-node communication is not allowed and responsively blocking the attempted inter-node communication, Colby et al. and Pfleeger fail to render obvious the invention of claims 1, 16, and 18. Further, claims 2-15 and 19-22 depend from either claim 1 or 18 and therefore incorporate all of the limitations of either claim 1 or 18, and thus Colby et al. and Pfleeger fail to render obvious the invention of claims 2-15 and 19-22 as well.

6. Response to § 103 Rejections of claim 17 Over a Combination of Colby et al, Pfleeger, and Arendt et al.

The Examiner next rejected claim 17 as being obvious over a combination of Colby et al., Pfleeger, and Arendt et al. Applicants traverse this rejection because the combination of Colby et al., Pfleeger, and Arendt et al. fails to disclose or suggest all of the limitations of this claim, as required to support an obviousness rejection.

Claim 17 depends from claim 16 and thus incorporates all of the limitations of claim 16. For the reasons stated above, the combination of Colby et al. and Pfleeger fails to render obvious

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the invention of claim 17. Further, Applicants submit that Arendt et al. fails to overcome the deficiency of the Colby et al./Pfleeger combination. Consequently, the combination of Colby et al., Pfleeger, and Arendt et al. fails to render obvious the invention of claim 16 and thus fails to render obvious the invention of dependent claim 17.

7. Conclusion

For the foregoing reasons, Applicants submit that claims 1-22 are in condition for allowance. Therefore, Applicants respectfully request favorable reconsideration and allowance of all of the claims.

Respectfully submitted,

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